

Comments on Day Ahead Market Enhancements Issue Paper/Straw Proposal

Department of Market Monitoring

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The ISO has proposed several changes to the Day Ahead market under the Day Ahead Market Enhancements initiative. Many of the ideas in the paper are promising changes that could become useful features of the market with further development. In comments below, DMM highlights some issues that warrant additional consideration.

Change to price formation in IFM

The ISO is proposing to create a new product, imbalance reserves, that will cause day ahead market schedules and prices to be partly a function of the California ISO forecast of California ISO demand (CFCD). Currently the day ahead market clears supply offers against demand offers, subject to constraints. The CFCD does not play a role in determining the market solution.

To implement the proposed changes, the ISO is likely to model new constraints that will introduce the CFCD as a factor in the determination of the day ahead market solution and resulting prices and schedules. This change does not mean that the day ahead market will clear at the CFCD, but it does mean that the day ahead market schedules may move closer to the CFCD, and will be partly determined by the CFCD and the new imbalance reserve requirements. DMM believes that this is a large change to price formation which should be openly acknowledged and discussed by the stakeholder community.

Changes to structure of incentives for virtual bids

The ISO's proposal contains changes to the overall incentive structure for virtual bidding. One change is that bid cost recovery from the residual unit commitment process will be eliminated. Some of these costs are currently allocated to virtual supply, so this proposed change could decrease costs allocated to virtual supply, unless appropriate changes are made to other allocation rules.

Multiple changes to the costs of virtual bidding will come from the imbalance reserve product. First, if the proposed imbalance reserves are implemented, day ahead prices can be expected to increase, because the market will be procuring a new product that competes with generation and ancillary services. Another change comes from the fact that decreased frequency of price spikes should be expected in the real time market after implementation of the imbalance reserves, because those reserves should guarantee the needed capacity will be available in the real time market. The ISO has also proposed that costs will be allocated to virtual supply and demand related to imbalance reserves.

DMM encourages the ISO and stakeholders to carefully consider the impact that the ISO's suite of proposals will have on the behavior of virtual bidders. The ISO's ultimate design should ensure that virtual bidders do not have incentives to undermine reliability or market efficiency, and that costs are allocated efficiently and appropriately.

Other issues

According to the proposal, costs of the imbalance reserves will be allocated partly to the difference between load scheduled in the day ahead market versus metered load. However, day ahead scheduled load may be dependent on the CFCD and not just market participant demand bids. This potentially complicates the ability to use day ahead schedule versus meter imbalance energy to determine when market participants cause the need for imbalance reserves. At times, the use of CFCD may cause the need for imbalance reserves. More detail about the mathematical formulation of the proposed changes to the markets and the determination of the imbalance reserve requirements will allow stakeholders to better evaluate the proposed cost allocation.

The issue paper highlights some work the ISO plans to do on analyzing historical imbalance. DMM believes that it would be relevant to learn about how often the current IFM clears closer to RTD load than CFCD is to RTD load.

In Appendix C, the ISO states that the mathematic formulations for the enhancements will be included in the next iteration of the paper. These mathematical details will help establish how the new pricing mechanism will work, and may clear up some issues while also raising new questions. DMM anticipates significant comments and discussion on the mathematic formulation once it is published.

In Appendix B, the ISO states that the imbalance reserve requirement will be determined using historical data and regression testing. The details of how the requirement will be set (and how costs will be allocated) are fundamental aspects of the market design. DMM looks forward to learning more about this aspect of the proposal and, before the ISO takes a proposal to the Board, helping the ISO develop and vet the details of the model that will be used to determine the requirements.